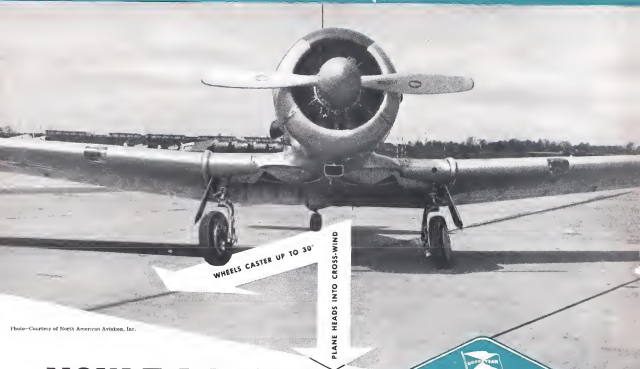


AVIATION WEEK

A MCGRAW-HILL PUBLICATION

SEPT. 18, 1950

\$6.00
A YEAR



Photo—Courtesy of North American Aviation, Inc.

NOW T-6 LANDS CROSS-WIND



It's a special design of the famous Goodyear Cross-Wind Landing Wheel on these T-6 "Texan" Trainers. An outstanding feature of this castered wheel is a lock that lets it be used also in conventional fixed manner. Another case where Goodyear leads the field in wheels, tires, tubes and brakes. For complete information on Goodyear Aviation products, write:

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**"51% GREATER ACCURACY
with the Honeywell Electronic
Fuel Gage!"**

W. E. LAWRENCE

Director, Design Engineering
American Airlines



MR. LAWRENCE says, "To us, the two important advantages of your gage are accuracy and dependability. We are now able to carry larger payloads with the Honeywell Electronic Fuel Gage, because this instrument affords indications having 51% less error than former methods used to indicate fuel supply." That's why 3 major airlines, like American, use Honeywell Electronic Fuel Gages. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada, Toronto 17, Ontario.



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AERONAUTICAL CONTROLS

Nothing Rolls Like a Ball

**You couldn't buy
a better bearing !**



**NEW DEPARTURE
BALL BEARINGS**

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT

NEWS DIGEST

DOMESTIC

Canairliner has been certified by CAA for a gross takeoff weight of 61,700 lb., an increase of 1200 lb. First planes to be licensed under the new gross weight will be for Canada 740s minus. Airway, which has ordered eight, and two for Ethiopian Air Lines. The Turbofan, being built for General Motors with two Allison T-58 turbo-prop engines also will have the higher weight.

First Boeing B-29P flying home aerial tankers have been delivered to the 97th Aerial Refueling Squadron at Eglin AFB, Texas. Boeing is training the tanker crew.

William A. Walback has been appointed head of the newly formed Office of Basic Instrumentation at the Naval Bureau of Standards. He formerly was chief of the bureau's Basic Instrumentation Section. Walback, with the bureau since 1918, has done extensive work in the field of rugged equipment for high-altitude flight.

Aviation's Airlines accident near Dayton last month, when a propeller and parts of an engine ripped through the ribs of a DC-6, has been traced by investigation to a faulty Corbin propeller which managed to get by company inspection.

Dr. John C. Southard, director of research at Sellen Aircraft Co., San Diego, died Sept. 4. He was 41 years old. He was a member of the NACA when he worked on aircraft structural analysis.

New wind tunnel at California Institute of Technology has been named the "Merrell Tunnel," in honor of Albert A. Merrell, one of the chief engineering assistants. Merrell, who built a wind tunnel at the Massachusetts Institute of Technology in 1905, was a contemporary of the Wright Brothers.

MATS will not back civilian carrier contracts on the trans-Pacific route 10 percent Sept. 20. A second 10 percent reduction is set for December. The September order affects all prime contract services, except those involving flying tips, oceanic routes, and California routes. MATS is raising its new transport strength on the Japan route to make up the difference.

McDonnell Aircraft Corp. is expanding its plant facilities at Lambert

St. Louis Airport in preparation for its new jet Douglas Navy fighter production program. A \$2.5 million new plant for building, storing and storing jet plants in the major area in the expansion program.

Pacific Airmotive Corp. has been awarded an extensive contract by AMC to design, develop, produce and maintain a large number of military four-engine cargo transports. The work will be done at the company's new airport, near Chicago and Ontario, Calif.

Rear Adm. Calvin M. Baker, USN, and Capt. James L. Hight, USAF, today are scheduled to receive National Council's 1918 awards for aviation research by armed forces members. Adm. Baker, and chief of Baker for the research and development, gets his award for work, and accident, involving the design of a new aircraft. Hight, of AMC's Equipment Laboratory, Wright Field, is being commended on developing a highly flexible wind delivery system.

FINANCIAL

National Airlines reports profit for the third quarter ending June 30 of \$128,100, compared with a net of \$10,500 for the preceding year. Revenues of \$15,000,121 were the highest in the company's history.

Consolidated Vulture Aircraft Corp. has declared a dividend of \$3 a common share, payable Nov. 17 to holders of record Nov. 7.

Parker Appliances Co. reports net income for third year ending Jan. 31 of \$246,875 on sales of \$7,131,150.

FOREIGN

Belgians Aircraft Selskabet has contracted a second DC-4, with double crew, to the Pacific Airlift. The first Selskabet plane has been operating across the Pacific for several weeks.

South African Airways has taken delivery of its four Gulf Stream Constellation for the Johannesburg-London route. The Constellation will fly to London three weekly. On intervening days, BOAC will fly the route, using Hercules aircraft.

United Kingdom aircraft industry exports totaled about \$10.6 million in July. The monthly average from June was in July 1950 had been \$8.4 million.

On the Douglas Skyraider

Safety Glass

BY PITTSBURGH



IN THE FRONT COCKPIT of the Douglas Skyraider, the windshield of bullet-resistant Plexiglas is forced by two side panels of bent Plexiglas into position by Pittsburgh. The windshield is protected and supported, also acts as a gunblast reflector.



Form courtesy Douglas Aircraft Co., El Segundo, California, plant.

VERSATILE is the word for the Navy's powerful skimmer. It is designed for "multiple types of combat service," including precision dive and skip bombing—paratrooper and landing.

To take full advantage of this plane's speed and maneuverability, the pilot must have perfect accuracy, undistorted vision. That is why the windshield in the Douglas Skyraider and the two flanking side panels are Plexiglas, both developed by Pittsburgh.

Pittsburgh aircraft-type Safety Glasses have won high preference among design engineers. More than half of all the glass parts used in the

aviation industry are supplied by Pittsburgh.

Pittsburgh's specialized research and production facilities in government and general glass-making experience are at the disposal of all our plane manufacturers, large and small. Whenever you have a problem that involves special type of glass or demands an original glassing technique, bring it to Pittsburgh for prompt consideration and—usually—solution. Pittsburgh Plate Glass Company, 25850 Germantown Building, Pittsburgh 29, Pennsylvania.



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VHF EQUIPMENT



Get station-free communication and the added reliability of voice range capabilities by installing a VHF Type 17 3-way VHF Communication and Type 315 Ocean Range Navigation Equipment. With the 125 watt in the VHF voice station, you are covering the country, you fly directly in less time. You can receive weather broadcasts simultaneously with the navigation equipment in one area! The 125 watt voice station and navigation equipment provides time, direction, and position. The Type 27 provides an independent communication system for use while the 125 is busy providing navigational information. Other A.R.C. equipment provides LP range and broadcast navigation, and available long-range navigation.

All A.R.C. Aircraft equipment is Type Certified by CAA. It is designed for reliability and can be maintained in use as a piece of equipment for both day and night. Original plans are made only by individual service agencies. Write for further information to your nearest A.R.C. representative.

Aircraft Radio Corporation
ESTABLISHED 1927

Dependable Electronic Equipment Since 1929



***10**
EXAMPLE PROJECTS
***8**

JET COMBUSTION CHAMBER LINER

Problem:

To successfully weld high alloy contact areas, stress relief, tempering is necessary. However, and results by automatic before process.

Solution:

Chilling of all weld joints for relieving stress and penetration of specific size control for each heat in all welding operations.

Result:

The use of liquid nitrogen allows stress relief, tempering, and thermal shock resistance are of great consideration.



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METAL AIRCRAFT PARTS



AIRCRAFT CORPORATION
NEWTOWN, Bucks County, PENNA.

AVIATION CALENDAR

- Sept. 10-21-19th annual symposium on human and related Manpower Aviation, Buffalo, N. Y.
- Sept. 22-23-24th meeting on navigation and electronics, sponsored by the Institute of Navigation, the Radio Technical Commission for Marine Services, New York City.
- Sept. 25-27-19th annual electronic symposium, Edgar & Sons Hotel, Chicago.
- Sept. 28-30-automatic meeting and air craft engineering display, Society of Automotive Engineers, Grand Illusion, Los Angeles, Calif.
- Sept. 28-30-19th annual convention of International Northwest Aviation Council, San Valley, Idaho.
- Oct. 1-3-Middle eastern defect meeting, American Institute of Electrical Engineers, Baltimore, Md.
- Oct. 8-10-19th annual convention, Air Line Dispatchers Assn., Congress Hotel, Chicago.
- Oct. 9-11-Autumn meeting at National Academy of Sciences, General Electric Co. research laboratory, Schenectady.
- Oct. 14-15-19th annual international packaging and methods handling exhibition, Convention Hall, Philadelphia.
- Oct. 15-17-19th conference on airport management and operations, Max West Hotel, North Campus, University of Oxford, Norman, Okla.
- Oct. 16-20-19th annual general meeting of the International Air Transport Assn., Fairmont Hotel, San Francisco.
- Oct. 16-20-Annual national conference of the Society of the Plastics Industry, Inc., in conjunction with Harvard Business School Symposium, Mass.
- Oct. 21-23-1st annual meeting, American Welding Society, Hotel Maymont, Chicago, Ill.
- Oct. 24-25-Third annual Methods Handling Conference, sponsored by West Virginia Electric Corp., Hotel Statler, Buffalo, N. Y.
- Oct. 25-26-Flight Safety Foundation annual Safety Seminar, Denver, Colo.
- Oct. 26-27-19th annual Airman aviation symposium, sponsored by the aviation committee of the Texas Chapter of Engineers, Austin, Texas.
- Nov. 20-Dec. 1-Eighth annual meeting of Aviation Consultants and Manufacturers Assn., National Hotel, Los Angeles.
- Dec. 16-19th Wright Brothers Lecture, Institute of Aeronautical Sciences, U. S. Chamber of Commerce Auditorium, Washington, D. C.
- Dec. 15-20, 1959-Final conference show and concept conference on plant manufacturing techniques, Cleveland, Ohio.
- Jan. 18-Feb. 1-19th annual meeting of the Institute of Aeronautical Sciences, Hotel Alton, N. Y.
- May 20-May 29-World Transportation Fair, Sands Hotel Park, Ascona, Switzerland.

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WHO'S HERE

In the Front Office

In a reorganization of top management, Thomas E. Goetz, formerly Stet Airway vice president-engineering, has moved up to the presidency of the freight line, replacing founder Karl F. Stolt, who retains his position as chairman of the board. William E. Heflin, western division vice manager, has been detailed executive vice president, replacing Lewis E. Morrison, D., who became vice chairman of the executive committee and vice chairman of the board.

Stolt and Morrison will continue to give their full time to the airline's activities. Other top-level changes include: Ralph F. Court in vice president-accounting; David E. Stewart in vice president-insurance; M. P. Hall, Jr., operations manager; and M. C. Wilkin as ground vice manager.

Fred J. Koser has been appointed to the newly created position of assistant, national engineering change control at Calspan Wright Propeller Division. Koser, who has been with C.W. for over 16 years, was previously responsible of national control since 1970, following his transfer from the company's engine division.

Alfredo T. Batten has been named vice president of North American Aviation. For nine years the firm's Washington representative, Batten had been serving as executive vice president since 1966, in charge of sales coordination and customer relations.

Travel Log



HAVING HELPED FAVE THE WAY—St. Keith M. Smith, who made the first flight from England to Australia in 1915 with his brother, Ross Smith, probably spent some time in attending education during his recent flight to London aboard a B-707. Smith, now 61, is now headmaster at N.Y. International Airport. St. Keith, since 1924 general representative of Vickers Armstrong, Ltd., in Australia, made his historic flight in a single-engine biplane Vickers Vimy biplane.

INDUSTRY OBSERVER

A design competition for conceptplanes, aircraft that can fly vertically like helicopters and laterally like conventional planes, is now being set up by the Air Force and Army at Wright Field. Specifications will be sent out to manufacturers within two weeks.

Navy is issuing evaluation tests at Patuxent NAS, with a Sikorsky HH-60 rescue helicopter on loan from the Air Force, fitted (on advance of receipt of the first of 10 anti-submarine HH-60-1 helicopters) with amphibious float wheel landing gear. Navy does not expect to buy the first gear, but will specify conventional wheel gear to save the extra weight and cost of a float gear. Navy remains will be 100 ft. lighter than the HH-60.

Recent status of American pilots and ground personnel working for "friendly nations" airlines is a real headache to those airlines right now. State Dept. is asking to work out arrangements with Department of Defense in the friendly nation airlines such as El Al, TACA, South America and Philippine Airlines will not be too seriously supplied by reserve calls to active duty.

Lightplane manufacturers who have not yet got going on military contracts are beginning to feel the military pinch. Bristol has already completed new development and experimental models, but not certified. Johnson Aircraft Co. at Deland, Fla., whose Jupiter personal plane is just about ready for its long-delayed certification, is now looking with interest in the plane's military possibilities as a radio-controlled target plane. The head of the company, Charles Johnson, is credited with design of most of the Cuban target planes of World War II.

Glen L. Martin Co. is expected to add for another RFC loan to finance the construction of the 10 additional 4-4-4 transports which TWA has ordered.

Elko Aircraft Corp., Norwood, Mass., is looking orders for its new Helicopter Four show-bird plane, at \$6000 a plane. The production prototype had not yet flown only in September, due to delays in receipt of important purchased components. Orders are contingent on completion of CAA certification.

The long-awaited encounter between McDonnell Douglas Navy jet fighters and USAF Convair 440 reconnaissance bomber took place in the New York area toward the end of May. Both sides agree that the encounter didn't prove too much, since it was at 12,500 ft., well below the big bomber's best operating altitude, and the 440 was one of the early unmodified versions without the jet pods which add so materially to its performance.

Fast motor plant to be opened under expanded military requirements is expected to be the World War II Dodge plant at Chicago where the Ford Motor Co. is going to make Ford F-100 and F-150 engines under license agreement arranged under industrial mobilization plans.

Boeing Aerospace Co., stopping up production of its jet engine B-707, is now hard at work, making out design problems for a redesign version of the medium bomber. Major difficulty is compensating for the aerodynamic change which occurs in the nacelle, wing along 62 in. from dorsal to ventral ("negative dihedral") while in flight.

Borch Aircraft Corp., Wichita, despite increasing orders from USAF and Navy, has managed to keep production of the Bonanza up to 12 planes per week. Main plant is concentrating on applying USAF with F-402 M25 jet, winging tank. Production and supply of the deservable tanks is possibly under way without official contract or letter of intent.

Aircraft Armaments, Inc., Baltimore, headed by Harry T. Rosend, president of Skybolt, Inc., Wichita, currently employs 12 men on research at its Baltimore, Md. plant. Plans are to increase research personnel to 300 by end of the year. Many of present staff are former research engineers from Glenn L. Martin Co.



Air Force's all-weather, high-altitude interceptor, the North American F-66D, with Hamilton Standard's air cycle refrigeration unit.



These 16 units are planned for the 16 airport surveillance radar installations where two additional facilities will be procured for training purposes.

► **Procurement Approach:** Radar facilities are \$380,230 each (\$2,015,630 total). These units will be established at Austin, Tex.; Charleston, W. Va.; Little Rock, S. C.; Dayton, O.; Fort Worth, Tex.; Jacksonville, Fla.; Long Beach, Calif.; Milwaukee, Wis.; Minneapolis, Minn.; Norfolk, Va.; Philadelphia, Pa.; San Diego, Calif.; Utah, San Antonio, Tex.; Spokane, Wash.; and Tulsa, Okla. An additional facility will be procured for training purposes.

Of the overall total of \$57,827,800 shared for establishment of all types of air navigation facilities during fiscal 1992, \$46,761,000 would be spent on commercial U.S. \$461,480 in the Caribbean, \$259,910 in Alaska and \$31,000 in the Pacific. Besides the \$17,925,000 planned for implementation of the SC-91 program in costs under U.S. money, would be spent domestically for training in receiving VOR signals (\$612,313), instrument approach procedures in connection with communications (\$303,906), VOR improvements (\$15,940), non-visual signal transmitters (\$394,320), reduction of existing ILS facilities and compass locators (\$144,998), conversion for glide path beam feature (\$26,100), locational route channel improvements (\$94,255), port side field direction for glide path (\$31,908), and replacement of locational field direction (\$51,600).

► **Video Mapping:** An agreement with several surveillance and position systems under funding for video mapping (\$234,000) and an on-line monitoring (\$2,355,310).

Lighting of terrain obstructions in the vicinity of airports under \$27,702, dissemination of L-PMI facilities \$192,052, establishing radio beacons between \$172,500, installing new light lands \$209,600.

Airframe equipment funds provide for 70 VHF radio communications transmitters ranging \$124,600 to VHF navigational receivers \$9,500, 49 receivers and DG amplifiers \$15,523, 20 sets for 75 to 100 MHz, 100 MHz or more \$16,300, 30 portable test sets for DME interrogator \$220,600, 20 portable test sets for VOR navigational receivers \$30,180, 7 automatic pilots \$301,725, 5 compass air computers \$64,353, and 5 compass radio transmitters \$60,710.

► **AUTC Towers:** At air traffic control towers, airport expenditures include \$194,120 for establishing 4 AUTC towers, \$244,220 for retrofitting 16 AUTC towers, \$1,004,000 to establish 5 mobile towers, \$1,004,000 to install 40 approach sequence display units, and

\$2,374,000 to install 78 display radar scopes in towers.

At air traffic control towers, \$590,875 would be used to install display light radar scopes at 13 towers, \$1,161,000 for 26 microwave emergency and communications antennas, \$452,140 to install new VHF equipment at existing towers, \$1,161,000 to install 100 additional compass operating positions and \$1,111,000 to install 100 search radars (VHF/ADF).

Plane Licensing

Two U.S. fighters, two transports likely to be manufactured abroad.

Two current production jet fighters and two cargo aircraft are being considered by Defense Department for license and manufacture in foreign nations allied under the North Atlantic Treaty Organization.

Funds set aside for industrial defense development in NATO nations now total \$474 million-plus, with the first \$200 million scheduled for actual industrial development.

► **Fighters—USAF** fighter jets are likely candidates for foreign license and manufacture are North American F-16 Seater, already in production in Canada by Canadian, Ltd., and the Republic F-105. Already scheduled for shipment to NATO nations are more than 300 F-4 Phantom II fighters.

► **Transports—Army** cargo transports under consideration for foreign manufacture are the Fairchild C-119 and the Douglas-produced C-124. DC-4M from the NATO nation is Airline Corp. had been approved previously in connection with possibility of licensing the

C-119 for manufacture both in Canada and in England. The company is reported to have turned down both the Canadian and the British production offers.

Revised fiscal year 1990 estimate of financial support to give assistance in industrial defense potential for treaty nations was set at \$18,326,000. These funds, however, were virtually frozen so expenditures on basic commodities only and provided no real assistance in building industry.

New legislation provided for in the fiscal 1991 budget located the sums to \$75 million. The supplemental bill introduced by President Truman added another \$400 million to the industrial development pool. It also provided for actual industrial assistance such as machine tools, equipment.

Of the \$675 million total, the Defense Department estimates that approximately \$110 million is allocated for subsidizing and expanding the treaty nations' aircraft industry. Production potential as a result of that expenditure is estimated at approximately 5607 million worth of industrial stock. This does not include current production which is figured to be \$64 million.

Breakdown of the proposed \$75 million expenditure indicates that the production potential of NATO nations would eventually exceed defense equipment totaling \$240 million in the Western group of nations.

► **Tactical Aid Deficient—Conferees** between nations allied under NATO agreed that military production of aircraft for individual air defense was not sufficient to meet the common need. As a result the supplemental appropriation bill is designed to provide for assistance in NATO nations in developing tactical and cargo aircraft industry potential.

Factories being programmed at the Department of Defense also provide for training technicians in all activities relating to air power. Major emphasis is to be given industries developing radio, radar and voice communications, sensors, bombs, missiles, machine guns.

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Practical procurement is planned for motor transport and special purpose vehicles for assault landing and operations.

Current thinking at the Pentagon is to standardize on the North American F-16 and the Republic F-105 in both the

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Turboprop Future Seen Bright

Great power and low fuel consumption of P&W T-34 foot-shadows increased utility for turbine-propeller craft.

By Alexander McFarley

Pennant River, Md.—Bearing marksmanship which maintains Japan, the latest of the turboprop engine looks new.

Experts at the Navy Air Test Center here predict that within two years turboprop engines will be flying with at least 600 consistent thrust hp and with specific fuel consumption below 0.5 lb./hp.

The most powerful turboprop flying in this country, currently at the Naval Air Station, is the P-3 Orion. It has a specific fuel consumption of 0.62 lb./hp (Aviation Week Sept. 11, p. 12). The T-34 made its first public demonstration last week to the military press at Patuxent, which is now flown in the name of a B-17 model.

Rear Adm. A. M. Price, chief of the Navy Bureau of Aeronautics, passed the first test bed method in testing new engines as a standard in development work.

Both Pratt & Whitney and Allison, he said, had saved much time by

the certified, as much as two years in the case of Pratt & Whitney.

► **Biggest Engine—Perry** Pratt, assistant chief engineer of Pratt & Whitney, compared the basic characteristics of the biggest piston engine, the P&W R-4300, which is 8,821 lb./hr./hp., with that of his company's new engine. Pratt indicated that his company does not expect to develop a larger piston engine than the R-4300.

The record of less than 0.5 fuel consumption and 7000 hp, was given by Lt. Cmdr Robert C. Clark, at the present project, Bureau of Aeronautics.

Emphasizing the potential of turbo-prop planes for long range, Navy spokesmen cited the new Douglas AD-3 turboprop attack plane, which was described as about 100 mph slower than jet planes of comparable size, but able to cruise three times the load, and able to cruise with jet fighters, with appreciable longer endurance.

Although there are no piston engines of comparable power, a hypothetical piston-engine attack plane of comparable size might have about the same top

speed as the turboprop, but would have a much lower cruising speed, they said. Navy jets—Navy jet fighters demonstrate speed and maneuverability in comparison with piston engine planes, in a report for the studies part, which was obtained by a flight show of the new turboprop engine in its B-17 test bed.

Harold Arden, Pratt & Whitney chief test pilot, flew the plane with all four of its piston engines balked. He made a low pass about 150 ft. above the runway, and then put the plane into a steep climb using only the turboprop power. The single turboprop engine actually is more powerful than all four of the piston engines combined.

Crash test results were made by a McDonnell Douglas F-102, a Douglas AD-3 attack plane, and a Grumman F-101B. Pratt & Whitney is also making a test bed by a Lockheed F-104. A Lockheed F-104, on loan from USAF, ended on hand.

An AD-3 modified two-engine turboprop, and low-level power by a Wright F-104. A Grumman F-101, the B-100, and a Wright F-101. Pratt & Whitney is also making a test bed by a Lockheed F-104. A Lockheed F-104, on loan from USAF, ended on hand.

The test flying part of the F-102 and the additional engine under test, leading attitude of the F-102 were the most interesting spectacle which were seen at the show.

Money for Subcontractors

More than \$2 billion of the \$7.5 billion USARP Navy procurement money will go to subcontractors, it is disclosed in an American Whose survey of the prime contractors and engine manufacturers who will get the bulk of the procurement funds.

For the time being, most of the prime manufacturers have sufficient subcontractors, according to the survey, full results of which will appear in American Whose's annual "Procurement for Air Power" to be published next week. But still the prime manufacturers are interested in locating potential new subcontractors in case their government commitments should become larger.

Most active manufacturers on using subcontractors probably is Pratt & Whitney Aircraft division of United Aircraft, which will pass on at least 78 percent of its government money to subcontractors. Subcontracting at P&W has been established policy since inception of the engine firm in 1915.

The survey reports the manufacturers' expenditure and difficulties in obtaining subcontractors with the proper qualifications, and runs up the requirements each manufacturer would like as a subcontractor.

NWA vs. Boeing

Stratocruiser suit seen as having effect beyond immediate damage issue.

Northwest Airlines' suit, filed in the U.S. District Court in Seattle against Boeing Airplane Co. for damages of \$24,766,986, is held to have a series of implications beyond this specific proceeding.

The effect by Northwest is pointed as the allegation that Boeing was in late in delivering 10 Stratocruisers that the carrier intended heavy losses. Also, the suit charges the high maintenance costs of the plane and the delay of daily deliveries to meet the original specifications caused serious economic losses to Northwest. Economic cost of spare parts by Boeing to Northwest is also claimed and made part of the suit.

Delivery of the planes was originally scheduled to start January, 1947, but actually did not get started until April, 1948. This, the complaint charges, resulted in a loss of potential revenues and profits to Northwest of \$16,624,000.

Boeing Stand-By, as the effect here, considers that it has satisfactorily fulfilled all the requirements of the purchase contract with Northwest as the Stratocruiser and officially notes that Northwest has no claim for any delay in delivery. Moreover, Boeing points to the 21 military Stratocruiser sales of world service by five airlines without serious incident as for their substantiation of its position.

The Northwest action is viewed by informed observers as a "last-ditch" gesture to remove the stain of its huge economic losses and shift this responsibility elsewhere.

■ **NWA Previews**—It is well-understood that Northwest has been in serious financial straits and is also faced with a reduction of its high subsidy paid per air mile operational services.

It is known that Boeing's contracts are very tight legal documents and it may prove exceedingly difficult to prevail in meeting the company in any legal action.

The entire matter is also delicate in that the Northwest complaint although charging any dissatisfaction with the actual safety performance of the plane, does not set up any unsubstantiated claims of any world be treacher on this equipment.

This condition not only pertains to Northwest but will also apply to United's Boeing aircraft and the operations of The American States owner fleet. AAN's Boeing equipment will soon be phased by Pan American.

Britain Displays Year's Work

Farnborough exhibits are mainly modifications of 1949's prototypes; turbine progress revealed.

By David A. Appleton

Farnborough, Eng.—The 1950 show of the Society of British Aircraft Constructors indicates the stress placed during the past year on improving and modifying 1949's prototypes which were entering production. It also revealed further progress in turbine power plants.

The past year has not wrought much change on the face of British aviation (of the 10 or so "new" airplanes which flew this year, most existing were the venerable Viscounts 7, 1947 and Vulcan Supermarine 515 (see page 18)). Both are powered by Rolls-Royce Neoms and both are developments of earlier types.

■ **Viscount**—Supermarine is again probably going to the Viscount 515, which was also being, and has a higher wing loading, it reached March 30 in a high speed fly-by in poor weather.

The new P. 1041 is reportedly agile and has a high rate of climb. Although both planes were demonstrated at full throttle, the Hawker was only slightly slower than the 515.

■ **Fast Glider**—The new design for the glider display was the Avion Meteor with the new series of Avion jet engines currently developing something over 8000 lb thrust. The plane reached 6 seconds from standing start to being aloft and showed a climb rate of 1000 ft per climb. Since jet watches, and knowledge of the height of the cloud base put an estimated climb of 15,000 ft per.

On the transport side, the turbo-prop Viscount 700 showed off the crowd, sporting British Aerospace AP

wing and nacelles. The plane, the first of 28 ordered by BAA, has a longer fuselage, greater span and wider engine spacing than the prototype.

The second to Havilland Comet also appeared, flying with the prototype. Biggest plane to fly over was the Bristol Britannia 1. The second largest plane in the show—the Universal Freighter—demonstrated excellent takeoff performance and flight steadiness, even though it was flying empty.

■ **Research**—Fleetline's research aircraft made their appearance at the show. Two of these are high-altitude flying balloons. The Aero Auklet with four Neoms, and the Vulcan Vincent converted to two Rolls-Royce Turboprops, are planned for operation at 50,000 ft and are intended to obtain flight test data.

The Aero 707B, the second model of a delta-wing research plane, was shown in the second day. The first 707, which was shown last year, was lost in a crash after the 1949 show. The new version has a longer nose and even a chute for landing during the testing run.

Engine flight test beds which flew, in addition to the Avion Meteor, include Proteus Lincoln, revised new Bristol Proteus turboprops (1950 rebuilt by 1 in 1000 hours) for the first time since they and the Bristol Proteus, first flown late in 1947, powered by two new Armstrong Siddeley jets. Although the Supermarine thrust was believed to be the best of the three, both engines are aimed at an eventual 9000 lb thrust.

which an interim report will be issued in December is intended to lay the groundwork for and to assist with new being covered by safety research.

The center was established by the Daniel and Florence Guggenheim Foundation which has appropriated \$150,000 for the center's initial work.

Harry F. Guggenheim, president of the foundation, said "The objective of the center will be to advance safety in aviation as effectively as we have advanced speed and efficiency."

The center will be under the supervision of a committee consisting, thus far, of Dr. T. P. Wright, vice president for research at Cornell and former Administrator of Civil Aeronautics. The center of current aviation safety research is being conducted by Roland M. Woodhouse, former administrator of the Standard Aeronautical Index.

Seen at the SBAC Show . . .



AVRO ASHTON 3 (above) shows numerous modifications over Tudor predecessors, including fuselage gaps, improved vertical tail, new nose. The four R-R Neoms give a total of 26,000 lb thrust.

BLACKBURN & GENERAL AIRCRAFT Universal Freighter 1041, BAC's largest plane, features direct loading into fuselage via chuteshaft doors at rear. Four Bristol Hercules engines give freighter a cruising speed of 180 mph at 12,500 ft. Gross weight is 55,000 lb., payload 12,500 lb.

DBI 315 (right) is second Vespene modification, a two-seat side-by-side dual control trainer for entering type in jet piloting, navigation, emergency, engine starting and flight landing. Important modifications include enlarging of nose and cockpit to allow sufficient room for carrying a student. Power plant is a DBI Goshawk 3 of 1550 to static thrust is 11,500 lb. Top speed at sea level is 400 knots. The 315 is hardly similar to the MB-3 fighter-bomber and can be adapted to operational use.



AVRO ASHTON 3's (above left) show, undergoing remodeling of R-R Neoms is pointed up in this front view of the search transport.



The 1041's (above right) actually pilots, powered by two 48 Hercules turboprops, has been nicknamed "Dumbo."

The many production applications of Lohm Heavy Solenoids vary from the dependable, suspension ripping of alkaline tank valves to the activation of rugged, hydraulic valves on heavy duty minerals handling equipment.

Free Larkin Heavy Salsanoid models are manufactured. Diameters range from 7/8 to 3 1/2 inches. Preassembled sections up to 30' can be engineered to suit your product's requirements. Starting weights for 43" circles range from 16 pound-inches to 50 pound-inches.

We supply to quantity users and so
 that the opportunity to be of assistance
 in engineering a Lufkin Rotary Schmidt
 to meet your product's requirements.

Index, i	1	2	3	4	5	6
Location	114°	114°	114°	114°	114°	114°
Latitude (N, degrees)	14	6	10	20	20	20
Altitude (m)	150	150	1	115	105	105

Magnum's unique design
the assembly along the
internal axis. This
is a standard
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WHITE
BURDET RD.

G. H. Leland 1902

105 YOUNG, S. 1993.

DAYTON 3, OHIO

Another magnetic tape recorder permitting play-back of conversations by two-way audio control towers and aircraft is being deployed on the equipment carrier. It is the Model 530-B Nagra-caster, produced by the Acrophier Corp. of America.

The adaptamatic is a versatile machine. It will continuously record phone calls on a single channel for 24 hours. If a voice-activated control is used to control the instrument, and the channel is used only part of the time, the cost will record proportionately longer without a time charge. It can be modified to take down conversations on two channels for 12 hours, or four channels for 6 hours.

A partially recorded reel may be played back immediately without interruption of the recording process, the firm says. And a casing device, in consultation with a time chart, speeds the search for conversations made during any part of the 24-hour period. The maker claims the tape may be played thousands of times without deterioration. Conversation is erased automatically from used tape as a new recording is being made.

• **Flexible Unit**—The under deck is a single Magmaster, with selection of angle to four-channel coverage, would be particularly suitable for small airports. The 300 lb machine takes up a floor area of about 1514 ft and fits in a room with a 7 ft ceiling. It costs \$1250. These Magmasters, costing \$4000 (includes 1900 for modifications), could be used to record an 12 channels over a 6-hour period at large airports.

The roof timbers of a rail housing two separate recording play back systems. Each recording system operates for 12 hours at a tape speed of 7 in./sec. A 15 in. diameter reel to reel system carries 6000 ft. of standard 1/4 in. recording tape. Since the tape has two tracks, the reel turns in one direction for 6 hours on one track, then reverses and records on the other track.

After both tracks on the tape have been run a total of 12 hours, a robot starts the second recording system on an identical cycle, giving a total of 24 hours of continuous recording without a reel change. Continuous operation for longer periods is achieved simply by changing the fast reel while the second reel is running.

To cover two channels for 12 hours, both recording systems are used simultaneously. Two-channel coverage for 6 hours is obtained by using both tracks on each tape of the two recording systems at the same time.

* Value-Activated-If desired, the cost.



peny will add a voice-activated circuit to control operation of the instrument by the sound of a voice or other signal. This circuit is designed to start tape load within 0.1 second after the signal and to stop at 5 seconds after sound has ceased.

The company has been producing amplifiers and radio equipment since 1934, according to Selery Karr, sales manager. Karr says the company's chief engineer, Nathan W. Rhynes, designed and built the first magnetic recording amplifier in the U. S. in 1937.

A system which utilizes a slit-type sensor to record and measure velocity and acceleration on a single strip of film of objects moving faster than 1000 mph, has been developed by Beckman & Whitley Inc., 906 San Carlos Ave.,

Besides recording and measuring velocity and acceleration of such high-speed objects as guided missiles and projectiles, the equipment can be used for recording cinematograph traces and other oscillations taking place vertically within the slit plane.

The film strips the equipment, known as the Temporal Sequence System, picks up optical and non-optical events to be stored with equal facility over as long a time period as desired. Besides the 50 Hz camera, the system includes a 100 Hz power plant and a 50 Hz time control mechanism.

Adjustable film speed in either direction permits recording of events progressing in either direction across the vertical slit of the camera. The result is a lock like a conventional stop-action chronograph of two-dimensional scenes.

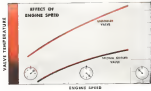
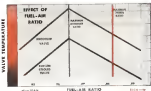
For anti-optical cross, electrical pulses can be fed to the system and recorded on the EDC as significant relation to the time sequence on the EDC.



The trend of modern engines is to operate at higher speed and more economical fuel-to-ratio. In considering factors which influence exhaust valve life, temperature is the dominant one. High temperatures sharply reduce the resistance to corrosion, distortion, and fatigue life of the finest alloy steel. The effectiveness of sodium cooling in reducing valve

temperatures is shown by the curves below, which are typical of recorded test data.

The curve "Effect of Fuel-Air Ratio" shows that as the mixture is leaned out to obtain maximum economy, valve temperatures rise. The curve showing "Effect of Engine Speed" indicates that temperature rises quite rapidly as speed increases.



Eaton engineers will welcome an opportunity to discuss the application of Eaton valves used valves to engines proposed or now in design.

EATON

MANUFACTURING COMPANY

VALVE DIVISION • 9771 FRENCH ROAD • DETROIT 13, MICHIGAN



SIPA S 90: Light transport plane powered by 75 hp. Minor engine. Construction is plywood and fabric. Top speed is 120 mph.



BREGUET 900: Sleek airplane has tip installations to prevent wing damage, which also probably serving to give extra lift effect.

French Private Firms Speed Comeback



MORANEAULLIER MS 790: Fastest colored lines transport also serves as cargo liner, light freighter, tanker. Top speed at 4000 ft. is 140 mph. Gross is 4025 lb.



DASSAULT VITRUL: Midsize transport, colored, carries 400 lbs. Two 500 hp. Renault engines with remote pitch props. Gross is 13,700 lbs., top above 40 ft. length 40 ft.



BREGUET 900 B: This military cargo, transport prototype has box-shaped middle fuselage section. Cruising speed is 150 mph.



REUT 81: This experimental sail aircraft was shown here and currently is being tested. Civil's company is currently safe.

Latest information on production activities of French privately owned aircraft companies reveal that private companies have been mainly on gliders, trainers, and touring types.

And these private enterprises could bring the difficulties that have beset French private industry, continue to show good progress. Last year, 18 first flights were made with a wide variety of craft built in 17 companies. These planes include fighters, transport and cargo types in addition to gliders, trainers and touring craft. And between January and July, this year, eight diversified types of planes by private companies were flown for the first time.

This record better than achieved by French nationalized companies in the same periods. Seventeen first flights in 1949 and three in July this year.

The accompanying information lists the production units of these 17 private French aircraft companies.

This detailed information, supplemented by data on the activities of the French nationalized companies, which appeared in the Aug. 25 issue of Aviation Week, gives a comprehensive picture of the type, flight status, and production plans for France's wide variety of aircraft.

Aircraft Production of French Private Companies

AIRCRAFT	FIRST FLIGHT	TYPE	PRODUCTION
ME-113 (Borealis)	1935-1936	Light transport	1935-1936
ME-114 (Borealis)	1935-1936	Light transport	1935-1936
ME-115 (Borealis)	1935-1936	Light transport	1935-1936
ME-116 (Borealis)	1935-1936	Light transport	1935-1936
ME-117 (Borealis)	1935-1936	Light transport	1935-1936
ME-118 (Borealis)	1935-1936	Light transport	1935-1936
ME-119 (Borealis)	1935-1936	Light transport	1935-1936
ME-120 (Borealis)	1935-1936	Light transport	1935-1936
ME-121 (Borealis)	1935-1936	Light transport	1935-1936
ME-122 (Borealis)	1935-1936	Light transport	1935-1936
ME-123 (Borealis)	1935-1936	Light transport	1935-1936
ME-124 (Borealis)	1935-1936	Light transport	1935-1936
ME-125 (Borealis)	1935-1936	Light transport	1935-1936
ME-126 (Borealis)	1935-1936	Light transport	1935-1936
ME-127 (Borealis)	1935-1936	Light transport	1935-1936
ME-128 (Borealis)	1935-1936	Light transport	1935-1936
ME-129 (Borealis)	1935-1936	Light transport	1935-1936
ME-130 (Borealis)	1935-1936	Light transport	1935-1936
ME-131 (Borealis)	1935-1936	Light transport	1935-1936
ME-132 (Borealis)	1935-1936	Light transport	1935-1936
ME-133 (Borealis)	1935-1936	Light transport	1935-1936
ME-134 (Borealis)	1935-1936	Light transport	1935-1936
ME-135 (Borealis)	1935-1936	Light transport	1935-1936
ME-136 (Borealis)	1935-1936	Light transport	1935-1936
ME-137 (Borealis)	1935-1936	Light transport	1935-1936
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ME-299 (Borealis)	1935-1936	Light transport	1935-1936
ME-300 (Borealis)	1935-1936	Light transport	1935-1936
ME-301 (Borealis)	1935-1936	Light transport	1935-1936
ME-302 (Borealis)	1935-1936	Light transport	1935-1936
ME-303 (Borealis)	1935-1936	Light transport	1935-1936
ME-304 (Borealis)	1935-1936	Light transport	1935-1936
ME-305 (Borealis)	1935-1936	Light transport	1935-1936
ME-306 (Borealis)	1935-1936	Light transport	1935-1936
ME-307 (Borealis)	1935-1936	Light transport	1935-1936
ME-308 (Borealis)	1935-1936	Light transport	1935-1936
ME-309 (Borealis)	1935-1936	Light transport	1935-1936
ME-310 (Borealis)	1935-1936	Light transport	1935-1936
ME-311 (Borealis)	1935-1936	Light transport	1935-1936
ME-312 (Borealis)	1935-1936	Light transport	1935-1936
ME-313 (Borealis)	1935-1936	Light transport	1935-1936
ME-314 (Borealis)	1935-1936	Light transport	1935-1936
ME-315 (Borealis)	1935-1936	Light transport	1935-1936
ME-316 (Borealis)	1935-1936	Light transport	1935-1936
ME-317 (Borealis)	1935-1936	Light transport	1935-1936
ME-318 (Borealis)	1935-1936	Light transport	1935-1936
ME-319 (Borealis)	1935-1936	Light transport	1935-1936
ME-320 (Borealis)	1935-1936	Light transport	1935-1936
ME-321 (Borealis)	1935-1936	Light transport	1935-1936
ME-322 (Borealis)	1935-1936	Light transport	1935-1936
ME-323 (Borealis)	1935-1936	Light transport	1935-1936
ME-324 (Borealis)	1935-1936	Light transport	1935-1936
ME-325 (Borealis)	1935-1936	Light transport	1935-1936
ME-326 (Borealis)	1935-1936	Light transport	1935-1936
ME-327 (Borealis)	1935-1936	Light transport	1935-1936
ME-328 (Borealis)	1935-1936	Light transport	1935-1936
ME-329 (Borealis)	1935-1936	Light transport	1935-1936
ME-330 (Borealis)	1935-1936	Light transport	1935-1936
ME-331 (Borealis)	1935-1936	Light transport	1935-1936
ME-332 (Borealis)	1935-1936	Light transport	1935-1936
ME-333 (Borealis)	1935-1936	Light transport	1935-1936
ME-334 (Borealis)	1935-1936	Light transport	1935-1936
ME-335 (Borealis)	1935-1936	Light transport	1935-1936
ME-336 (Borealis)	1935-1936	Light transport	1935-1936
ME-337 (Borealis)	1935-1936	Light transport	1935-1936
ME-338 (Borealis)	1935-1936	Light transport	1935-1936
ME-339 (Borealis)	1935-1936	Light transport	1935-1936
ME-340 (Borealis)	1935-1936	Light transport	1935-1936
ME-341 (Borealis)	1935-1936	Light transport	1935-1936
ME-342 (Borealis)	1935-1936	Light transport	1935-1936
ME-343 (Borealis)	1935-1936	Light transport	1935-1936
ME-344 (Borealis)	1935-1936	Light transport	1935-1936
ME-345 (Borealis)	1935-1936	Light transport	1935-1936

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AF Streamlines Jet Overhaul

Jet engine overhaul for the Air Force already has graduated into the big-scale "production line" stage. The procedure at Oklahoma City's Tinker AFB may well be the pattern for commercial overhaul activities when jet transports will be flying the air lines.

Tinker, which takes its powerplants from all USAF jet craft, is packing out an average of 750 overhauled thrust engines per month, after just a little more than three years of operation. In May, 1947, the first result of its operation (1) jets were overhauled.

Overhaul Club-Tinker's jets that not only, as proving off by speedily getting its back into fighting planes, but from its constant engine at well. Cost of overhauling a J45-600 turbojet is reported to be only about \$22,000. And the reliability of the overhauled units is evidenced by a J-3511 engine that was reconditioned during the first month of Tinker's operation.

The jet was returned after 174 hours of flight time overhauled again, and is still in service. While this condition is not startling, it must be remembered that the jet and its overhaul procedure will not temporarily new.

► **Procedure**—Here are some of the high lights in Tinker's overhaul procedure.

First, the engine is stripped of all accessories—some parts having to return to 394 items included in the category. Each part is tagged and routed for testing, repair, and boring.

A little way down the line, the engine is separated into its components. Because the process of additive assembly is employed, each overhauled component finds its way back into the specific engine of which it was a part.

Pinion and non pinion components go through separate cleaning operations, each is checked for cracks and flaws. Magnesium is used for non ferrous materials. X-rays for the non ferrous. Internal inspections are made with the Soreby Radioscope.

► **Checkings**—Parts are passed in a 21-hour stress plate spin test. J-35s are spin-checked at 15,800 rpm. J-15s at 15,000, J-47s at 9,000 rpm.

After assembly, the engine goes to the test cell and checks are made of its thrust, air, compressor and turbine temperatures, specific fuel consumption at various rpm, and thrust values. The turbine wheel is subjected to acid and flame. A corrosion preventive oil also is run through the engine.

Overhaul time per engine runs between 500-600 man hours. Testing one means a good portion of this. Thus, had control overhauls about 14 man hours, but procedure takes another five.



1934 LOCKHEED'S SWIFT ELECTRA was built of Alcoa Aluminum

16 years ago you could see the "look of the future" in the distinctive Electra airplanes introduced by Lockheed Aircraft Corp. Fastest commercial transport of its day . . . one of the first to have a complete skin of alclad aluminum alloy. It was virtually all-Alcoa Aluminum from its twin rotors to its twin Pratt & Whitney engines. The original Electra is still flying.

1950



ALCOA ALUMINUM FLIES WITH

Capital Constellations

AIRCINES

Air travel has come a long way from the days of the Electra to today's luxury cruising in Capital Airlines' great, new fleet of Constellations. We value these high-performance ships the Capital men who fly them—the Lockheed

craftsmen who build them. It's a transportation team that's sure to click with the flying public. Look to Alcoa as your "High-overall Headquarters" ALUMINUM COMPANY OF AMERICA, 16033 Gulf Bldg., Pittsburgh 15, Pennsylvania.



ALCOA

ALUMINUM MAGNESIUM





SCHWEIZER 1-23

Nine of a total of 41 entries were U.S. only production sailplanes in the U.S. 1-23, 1-23B, 1-23C, 1-23D, 1-23E, 1-23F, 1-23G, 1-23H, 1-23I, 1-23J, 1-23K, 1-23L, 1-23M, 1-23N, 1-23O, 1-23P, 1-23Q, 1-23R, 1-23S, 1-23T, 1-23U, 1-23V, 1-23W, 1-23X, 1-23Y, 1-23Z, 1-23AA, 1-23AB, 1-23AC, 1-23AD, 1-23AE, 1-23AF, 1-23AG, 1-23AH, 1-23AI, 1-23AJ, 1-23AK, 1-23AL, 1-23AM, 1-23AN, 1-23AO, 1-23AP, 1-23AQ, 1-23AR, 1-23AS, 1-23AT, 1-23AU, 1-23AV, 1-23AW, 1-23AX, 1-23AY, 1-23AZ, 1-23BA, 1-23BB, 1-23BC, 1-23BD, 1-23BE, 1-23BF, 1-23BG, 1-23BH, 1-23BI, 1-23BJ, 1-23BK, 1-23BL, 1-23BM, 1-23BN, 1-23BO, 1-23BP, 1-23BQ, 1-23BR, 1-23BS, 1-23BT, 1-23BU, 1-23BV, 1-23BW, 1-23BX, 1-23BY, 1-23BZ, 1-23CA, 1-23CB, 1-23CC, 1-23CD, 1-23CE, 1-23CF, 1-23CG, 1-23CH, 1-23CI, 1-23CJ, 1-23CK, 1-23CL, 1-23CM, 1-23CN, 1-23CO, 1-23CP, 1-23CQ, 1-23CR, 1-23CS, 1-23CT, 1-23CU, 1-23CV, 1-23CW, 1-23CX, 1-23CY, 1-23CZ, 1-23DA, 1-23DB, 1-23DC, 1-23DD, 1-23DE, 1-23DF, 1-23DG, 1-23DH, 1-23DI, 1-23DJ, 1-23DK, 1-23DL, 1-23DM, 1-23DN, 1-23DO, 1-23DP, 1-23DQ, 1-23DR, 1-23DS, 1-23DT, 1-23DU, 1-23DV, 1-23DW, 1-23DX, 1-23DY, 1-23DZ, 1-23EA, 1-23EB, 1-23EC, 1-23ED, 1-23EE, 1-23EF, 1-23EG, 1-23EH, 1-23EI, 1-23EJ, 1-23EK, 1-23EL, 1-23EM, 1-23EN, 1-23EO, 1-23EP, 1-23EQ, 1-23ER, 1-23ES, 1-23ET, 1-23EU, 1-23EV, 1-23EW, 1-23EX, 1-23EY, 1-23EZ, 1-23FA, 1-23FB, 1-23FC, 1-23FD, 1-23FE, 1-23FF, 1-23FG, 1-23FH, 1-23FI, 1-23FJ, 1-23FK, 1-23FL, 1-23FM, 1-23FN, 1-23FO, 1-23FP, 1-23FQ, 1-23FR, 1-23FS, 1-23FT, 1-23FU, 1-23FV, 1-23FW, 1-23FX, 1-23FY, 1-23FZ, 1-23GA, 1-23GB, 1-23GC, 1-23GD, 1-23GE, 1-23GF, 1-23GG, 1-23GH, 1-23GI, 1-23GJ, 1-23GK, 1-23GL, 1-23GM, 1-23GN, 1-23GO, 1-23GP, 1-23GQ, 1-23GR, 1-23GS, 1-23GT, 1-23GU, 1-23GV, 1-23GW, 1-23GX, 1-23GY, 1-23GZ, 1-23HA, 1-23HB, 1-23HC, 1-23HD, 1-23HE, 1-23HF, 1-23HG, 1-23HH, 1-23HI, 1-23HJ, 1-23HK, 1-23HL, 1-23HM, 1-23HN, 1-23HO, 1-23HP, 1-23HQ, 1-23HR, 1-23HS, 1-23HT, 1-23HU, 1-23HV, 1-23HW, 1-23HX, 1-23HY, 1-23HZ, 1-23IA, 1-23IB, 1-23IC, 1-23ID, 1-23IE, 1-23IF, 1-23IG, 1-23IH, 1-23II, 1-23IJ, 1-23IK, 1-23IL, 1-23IM, 1-23IN, 1-23IO, 1-23IP, 1-23IQ, 1-23IR, 1-23IS, 1-23IT, 1-23IU, 1-23IV, 1-23IW, 1-23IX, 1-23IY, 1-23IZ, 1-23JA, 1-23JB, 1-23JC, 1-23JD, 1-23JE, 1-23JF, 1-23JG, 1-23JH, 1-23JI, 1-23JJ, 1-23JK, 1-23JL, 1-23JM, 1-23JN, 1-23JO, 1-23JP, 1-23JQ, 1-23JR, 1-23JS, 1-23JT, 1-23JU, 1-23JV, 1-23JW, 1-23JX, 1-23JY, 1-23JZ, 1-23KA, 1-23KB, 1-23KC, 1-23KD, 1-23KE, 1-23KF, 1-23KG, 1-23KH, 1-23KI, 1-23KJ, 1-23KK, 1-23KL, 1-23KM, 1-23KN, 1-23KO, 1-23KP, 1-23KQ, 1-23KR, 1-23KS, 1-23KT, 1-23KU, 1-23KV, 1-23KW, 1-23KX, 1-23KY, 1-23KZ, 1-23LA, 1-23LB, 1-23LC, 1-23LD, 1-23LE, 1-23LF, 1-23LG, 1-23LH, 1-23LI, 1-23LJ, 1-23LK, 1-23LL, 1-23LM, 1-23LN, 1-23LO, 1-23LP, 1-23LQ, 1-23LR, 1-23LS, 1-23LT, 1-23LU, 1-23LV, 1-23LW, 1-23LX, 1-23LY, 1-23LZ, 1-23MA, 1-23MB, 1-23MC, 1-23MD, 1-23ME, 1-23MF, 1-23MG, 1-23MH, 1-23MI, 1-23MJ, 1-23MK, 1-23ML, 1-23MM, 1-23MN, 1-23MO, 1-23MP, 1-23MQ, 1-23MR, 1-23MS, 1-23MT, 1-23MU, 1-23MV, 1-23MW, 1-23MX, 1-23MY, 1-23MZ, 1-23NA, 1-23NB, 1-23NC, 1-23ND, 1-23NE, 1-23NF, 1-23NG, 1-23NH, 1-23NI, 1-23NJ, 1-23NK, 1-23NL, 1-23NM, 1-23NN, 1-23NO, 1-23NP, 1-23NQ, 1-23NR, 1-23NS, 1-23NT, 1-23NU, 1-23NV, 1-23NW, 1-23NX, 1-23NY, 1-23NZ, 1-23OA, 1-23OB, 1-23OC, 1-23OD, 1-23OE, 1-23OF, 1-23OG, 1-23OH, 1-23OI, 1-23OJ, 1-23OK, 1-23OL, 1-23OM, 1-23ON, 1-23OO, 1-23OP, 1-23OQ, 1-23OR, 1-23OS, 1-23OT, 1-23OU, 1-23OV, 1-23OW, 1-23OX, 1-23OY, 1-23OZ, 1-23PA, 1-23PB, 1-23PC, 1-23PD, 1-23PE, 1-23PF, 1-23PG, 1-23PH, 1-23PI, 1-23PJ, 1-23PK, 1-23PL, 1-23PM, 1-23PN, 1-23PO, 1-23PP, 1-23PQ, 1-23PR, 1-23PS, 1-23PT, 1-23PU, 1-23PV, 1-23PW, 1-23PX, 1-23PY, 1-23PZ, 1-23QA, 1-23QB, 1-23QC, 1-23QD, 1-23QE, 1-23QF, 1-23QG, 1-23QH, 1-23QI, 1-23QJ, 1-23QK, 1-23QL, 1-23QM, 1-23QN, 1-23QO, 1-23QP, 1-23QQ, 1-23QR, 1-23QS, 1-23QT, 1-23QU, 1-23QV, 1-23QW, 1-23QX, 1-23QY, 1-23QZ, 1-23RA, 1-23RB, 1-23RC, 1-23RD, 1-23RE, 1-23RF, 1-23RG, 1-23RH, 1-23RI, 1-23RJ, 1-23RK, 1-23RL, 1-23RM, 1-23RN, 1-23RO, 1-23RP, 1-23RQ, 1-23RR, 1-23RS, 1-23RT, 1-23RU, 1-23RV, 1-23RW, 1-23RX, 1-23RY, 1-23RZ, 1-23SA, 1-23SB, 1-23SC, 1-23SD, 1-23SE, 1-23SF, 1-23SG, 1-23SH, 1-23SI, 1-23SJ, 1-23SK, 1-23SL, 1-23SM, 1-23SN, 1-23SO, 1-23SP, 1-23SQ, 1-23SR, 1-23SS, 1-23ST, 1-23SU, 1-23SV, 1-23SW, 1-23SX, 1-23SY, 1-23SZ, 1-23TA, 1-23TB, 1-23TC, 1-23TD, 1-23TE, 1-23TF, 1-23TG, 1-23TH, 1-23TI, 1-23TJ, 1-23TK, 1-23TL, 1-23TM, 1-23TN, 1-23TO, 1-23TP, 1-23TQ, 1-23TR, 1-23TS, 1-23TT, 1-23TU, 1-23TV, 1-23TW, 1-23TX, 1-23TY, 1-23TZ, 1-23UA, 1-23UB, 1-23UC, 1-23UD, 1-23UE, 1-23UF, 1-23UG, 1-23UH, 1-23UI, 1-23UJ, 1-23UK, 1-23UL, 1-23UM, 1-23UN, 1-23UO, 1-23UP, 1-23UQ, 1-23UR, 1-23US, 1-23UT, 1-23UU, 1-23UV, 1-23UW, 1-23UX, 1-23UY, 1-23UZ, 1-23VA, 1-23VB, 1-23VC, 1-23VD, 1-23VE, 1-23VF, 1-23VG, 1-23VH, 1-23VI, 1-23VJ, 1-23VK, 1-23VL, 1-23VM, 1-23VN, 1-23VO, 1-23VP, 1-23VQ, 1-23VR, 1-23VS, 1-23VT, 1-23VU, 1-23VV, 1-23VW, 1-23VX, 1-23VY, 1-23VZ, 1-23WA, 1-23WB, 1-23WC, 1-23WD, 1-23WE, 1-23WF, 1-23WG, 1-23WH, 1-23WI, 1-23WJ, 1-23WK, 1-23WL, 1-23WM, 1-23WN, 1-23WO, 1-23WP, 1-23WQ, 1-23WR, 1-23WS, 1-23WT, 1-23WU, 1-23WV, 1-23WW, 1-23WX, 1-23WY, 1-23WZ, 1-23XA, 1-23XB, 1-23XC, 1-23XD, 1-23XE, 1-23XF, 1-23XG, 1-23XH, 1-23XI, 1-23XJ, 1-23XK, 1-23XL, 1-23XM, 1-23XN, 1-23XO, 1-23XP, 1-23XQ, 1-23XR, 1-23XS, 1-23XT, 1-23XU, 1-23XV, 1-23XW, 1-23XX, 1-23XY, 1-23XZ, 1-23YA, 1-23YB, 1-23YC, 1-23YD, 1-23YE, 1-23YF, 1-23YG, 1-23YH, 1-23YI, 1-23YJ, 1-23YK, 1-23YL, 1-23YM, 1-23YN, 1-23YO, 1-23YP, 1-23YQ, 1-23YR, 1-23YS, 1-23YT, 1-23YU, 1-23YV, 1-23YW, 1-23YX, 1-23YY, 1-23YZ, 1-23ZA, 1-23ZB, 1-23ZC, 1-23ZD, 1-23ZE, 1-23ZF, 1-23ZG, 1-23ZH, 1-23ZI, 1-23ZJ, 1-23ZK, 1-23ZL, 1-23ZM, 1-23ZN, 1-23ZO, 1-23ZP, 1-23ZQ, 1-23ZR, 1-23ZS, 1-23ZT, 1-23ZU, 1-23ZV, 1-23ZW, 1-23ZX, 1-23ZY, 1-23ZZ.



PRATT-READ

This ultralight two-place, dubbed a "fat fly," has conventional wings slotted aft, and a double bubble. Craft was built by Class B champion. Sailplane was originally built for Navy as a trainer.

RJ-5

This sailplane was winner of contest. It was designed by Bruce Rie and Dick Johnson, flown by Rie. Its best performance was 377 mi. per gal. flight to record national goal, distance steadily. Wing is braced from



FARRAR ALL-WING

Frank Farrar's sailplane, experimental sailplane, was exhibited but not flown at meet. Long tip, no ailerons. Easy to craft in at rear (tail wheel) and pilot's seat, slotted in position.

Latest Gliders Gather for Meet

The recent Southwest National Soaring Contest at Dollar Coast Park, Arizona, put the spotlight on new design trends in sailplanes, indicating to expert observers that the U. S. has taken the lead in developing

new, efficient designs and promoting the soaring art. In the exclusive pictures here and on page 32, various WAA members show some of the most outstanding designs exhibited and flown at the meet.

HUMMINGBIRD

1st Nelson's powered glider has 40 hp, 4-cyl., 40 hp engine, fully retractable and covered by steel retracting canopy nacelle for soaring flight.



TINY MITE

Mini, ultralight sailplane was flown for first time this year. Builder put owner's pilot's head. Construction is plywood.





POWER PLANT FOR THE AIRTRUK—Two Wright Cyclone 9s—rated at 1425 hp—power the C-122 Airtruk with high power for short takeoffs—low weight for increased payload—the ability for greater endurance.



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The versatile family of service-proved Wright Cyclone engines powers each of these widely different aircraft with an engine ideally suited to its needs.

► **The Cessna C-122 Airtruk**—Air Force assault transport—takes off from and lands on short unpaved fields, must load and unload fast, and deliver troops and equipment in effective numbers.

► **The Douglas AD Skyraider**—new Navy "Airborne Arsenal"—fires up to 1000 lbs. of bombs and rockets at 100 miles an hour in versatile, rugged, formation for long-range capabilities.



POWER PLANT FOR THE SKYRAIDER—For the Douglas Skyraider, a single Wright Cyclone 18 delivers 1700 hp for take off—it's designed and built to provide exceptional take off, climb and range performance for carrier aircraft.



► The six aircraft shown below do other important jobs. Each has its own special power needs—and Wright engines power them all. The future will bring new needs, and Wright engineering and production teams are ready to handle them.

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North F4U Corsair



Lockheed C-124 Globemaster



North American T-6 Texan



Lockheed Constellation



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Gliders at Meet



FIGURE 215. Aircraft, especially close configuration was designed by Lockheed engineers Irving Free. (Design is to shallow, not Side Mount) probably has no back Wing is very thin. Craft goes high speed with high gliding rate



CONVERTED TG-4 The Editor-Kraftman Setup was forward two-place



ROSS-RANGER All metal except fuselage canopy top is not cockpit seat



Thirteen aspects of the "Mascot," new construction of David's meeting, which. Craft's fuselage has configuration similar to that of Bessie 300 (see page 14).

Brazil Introduces New Sailplane

(McGraw-Hill World News)

Sao Paulo, Brazil—A prototype glider designed and built by the Institute of Technological Research, Sao Paulo, has proved all flight tests and is now in use by the Polytechnic Institute Gliding Club.

A modified design along similar lines but having some simplified construction is on the drawing boards.

Designed by IPT-34 (Instituto de Pesquisas Tecnológicas, project 14) and christened the "Mascote" (Brazilian Dutch), the craft resembles conventional wood and fabric construction, with wing leading edge fixed in this position. The glider seats two in tandem, with the rear seat space recessed into the wing.

Wings are dismountable, each section being held to the fuselage by two bolts. Construction and performance of the sailplane are:

Wing span	— 45.9 ft.
Length	— 14.4 ft.
Wing area	— 101.4 sq ft.
Empty weight	— 404 lb.
Useful load	— 197 lb.
Wing load with	
1 pilot	1.55 lb./sq ft.
2 pilots	4.52 lb./sq ft.
Max. gliding angle	— 0.21
Current speeds	
with 1 pilot	44.6 mph.
with 2 pilots	50.8 mph.
Max. rate descent	
with 1 pilot	2.0 ft./sec.
at speed of	37.8 mph.
with 2 pilots	3.10 ft./sec.
at speed of	43.4 mph.
Max. design low speed	— 93 mph.
Min. sink dive speed	— 176.4 mph.

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AVIONICS

Alternator Insures Gyro Power

Engine-driven standby device has simplified electrical circuits. Versions available for 27 or 115v. service.

Flight losses associated with failure of power for gyro instruments now can be avoided with a simple permanent-magnet type of engine-driven alternator serving as a standby power source.

Use of the unit with a power failure indicator (Aviation Week, 7, p. 41) insures a ready emergency electrical energy source, with an adequate warning signal. When the indicator gives warning of low motor voltage or



losses of the power supply, nevertheless is made in the standby alternator for continuous gyro operation.

► **Two Versions** The alternator, made by Pioneer-Eclipse division of Bendix Aviation Corp., is available in two types similar in general construction, but differing in output voltage.

► **Type 16324** is generally designed as a power source for gyro instruments having approximately 0.85 power factor. At this figure, rating is equivalent to a 27-, 400-cycle, 1 phase, 1/8 or 2 1/2 in. output. Weight of the unit is approximately 5 lb.

► **Type 16314** is designed for electric gyro instruments having about 1.60 power factor, at which the rating is 1 1/2 in., 400-cycle, 1 phase, 7/8 in. output. Weight is about 9 1/2 lb.

These alternators have no rotor windings, slip rings or brushes. Though they have neither voltage nor frequency regulation, they will maintain over a wide speed range the ratio of voltage and frequency required for satisfactory gyro operation.

► **Making**—Each type consists primarily of four basic components: the mounting base (flange-end head), stator assembly, rotor assembly, and back head (rotor-drive end head). The rotor assembly is supported in ball bearings mounted into the end heads, and rotates within the stator assembly.

The flange-end head affords a stand and mounting flange for attachment to the engine or motor drive shaft. A motor is provided for rotation of the rotor support bearing, and a felt seal prevents leakage of engine oil into the alternator housing.

The rotor-drive end coupling with rubber mounts absorbs engine torsional vibrations, compensates for any slight drive misalignment, protects rotor and engine drive, and facilitates replacement of coupling.

The stator assembly consists of a number of laminations, with a ring at each end, held in a shell by solid edges. Three coils are interlaced in the slots provided by the laminations. The starting ends of the coils are connected. (Continued on page 39)

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on
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► The new Chase Aircraft XC-123 military transport employing a life guard of steel tubing to protect personnel in case of nose over or other accident.



A typical example of how steel tubing can be used for strength—dependability and safety.

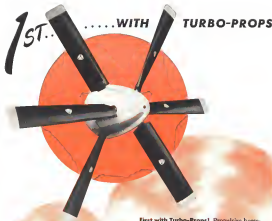
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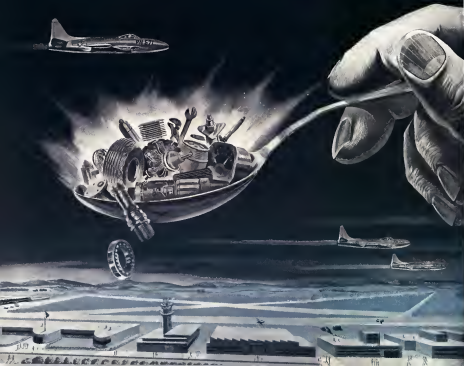
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A tapered lead from each end is splined to a stud wire to bring out full power for each of the three phases. The remaining end of each end is splined to a lead wire to bring out full power for each of the three phases.

The rotor magnet consists of a magnet-steel casting held to a steel rotor shaft by a plastic nut. Twenty poles are magnetized to provide alternating N-S units around the rotor magnet.

A magnet is provided in the anti-draw end lead for elevation of the other rotor support bearing, and an electrical terminal strip gives connection of the rotor end leads and external wiring.

Ground Power Units

New auxiliary power units are rolling off the production line at Aero Mfg. Corp.'s Lyonsport-Spartan division at Williamsport, Pa., to fill a substantial Air Force contract. Initial order was for 2500 of the ground power units, and additional orders have since been received, with negotiations under way for still more.

Used for starting turboprops, high-power piston engines, furnishing energy for charging electrically operated controls, instruments, radios, and radios, and charging batteries, these APUs were developed jointly by Lyonsport and the Air Force. They are designed to operate under severe temperature extremes and have been proved by extensive testing at the Lyonsport plant and Wright-Patterson AFB.

Heart of the unit is a Lyonsport 8-290-G1 four-cylinder air-cooled engine. Three models of the APU are •C31, incorporating a dc generator and an ac generator. •C32, having one ac and two dc generators. •B10, with one large ac generator and a dc generator.

The C-31 and C-32 will be used for starting jets, the B-10 for high-horse-power piston plants.

Chassis is a frame with pneumatic wheel. Rear axle is suspended on leaf springs. Front wheel is carried on a swivel pole for low-bar running. The unit is completely sealed, and thermally controlled skates about cooling air for the Lyonsport engine. Engine heat is rejected in a temperature up to 150 F.

The unit is a speed-increase connected directly to the engine and providing drive for the generator, a control panel carrying the necessary gauges, switches, relays, and associated equipment, and a gasoline heater capable sufficiently of warming the lubricating oil and batteries within 45 min to permit engine operation at ambient temperatures as low as -55 F.



A Snap-on Torquemeter is used to test the torque of a Beechcraft engine.

A model 222 Snap-on Torquemeter can test torque from 10 to 1000 ft.-lb.

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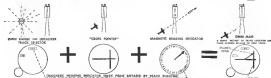
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Now, Bendix Radio's new OMNI-MAG enables the pilot to fly overcast, circuit navigation and landing approach problems with a minimum of instrument crosschecking and difficult mental calculations... — the pilot literally flies the OMNI-MAG pointer, always heading it as he would the nose of his plane to intercept or maintain the desired track. The "picture" presentation is achieved without any "black-box" or electronic tricks. All that has been added to standard instrumentation is one simple "brusher", a common electrical device supporting the OMNI-MAG heading pointer and repeating the indication of a remote magnetic compass. But, simplicity isn't its only advantage. The spiritometer at Bendix Radio has kept economy in mind. All electrical characteristics were kept standard — the OMNI-MAG, therefore, operates in conjunction with AURIC standard equipment already in use or planned for future installations. Thus, the OMNI-MAG is the logical choice for both safety and economical aircraft, proving the long line of accurate, dependable equipment that has made Bendix Radio famous all over the world.



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Re: Chemical Abstracts

X-Dependentism: Handed-Effect of sudden (explosive) decontamination as poisons or new residents occupying with immediately adjacent to the win draw or floor that given way, has been under extensive study both in this country and abroad. As a result, some useful calculations can tend to permit attention to these components and to consider them put as well as the others.

In this country, the Civil Aeronautics Administration's medical research laboratory at Oklahoma City has made a motion picture showing the effects of cabin depressurization on passengers. The film was shown to industry personnel at the Civil Aeronautics Board's recent meeting to stress simultaneous portions of the Civil Air Regulations.

• CAB Prisons—Meanwhile, a recently issued memorandum from the Director of GAI's Bureau of Safety Instruction to the Director of the Bureau

Other recommendations:

The mobile is a cost-stopper, and to be the largest jet developed for commercial use, costs just 2000 m. It's a real gem of an aircraft for the United Air Lines DC-6s to that point, says one major customer, and it's a real gem for the company. The mobile is a real gem of an aircraft for the company. The mobile is a real gem of an aircraft for the company.

• Persons on vehicle from rear of other means of restraint: the restraint should be permanently attached to each end and door. (Froese) *separates* require escape rope only if the exit is 10 ft or more above the ground with the gear retracted.

49

in equipment to other carriers. Net earnings reported by the Tigers are currently running at a rate in excess of all but one of the 19 major carriers, including "rehabilitated" airlines. Personnel declined. He said that among the all cargo carriers the Tigers have the only profitable freight operation. (Note: Solid Airways recently has been showing a profit.)

Revenues during the current (1950-51) fiscal year will be affected solely by military contract operations. Six of the carrier's DC-4s are now in service as the Pacific Airlift.

► **Healthy Finances**—Pittcock emphasizes that his company is now in a

strong position to exploit its freight franchise.

The Flying Tiger fleet has been increased from six to 24 planes during the past year.

And the Tiger's transcontinental freight stations in the same period are increased from six to 15.

It's revenue operations have also been expanded to several charter and lease flying in South America, Europe, the Middle East and Asia.

The Tiger's current assets total \$1,418,560 against current liabilities of \$795,561. And the company's \$623,000 in net working capital represents a \$260,000 gain over the previous year.

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SHORTLINES

► **Aerolinea Guatemalteca** will start service to Miami on its route between Mexico City and El Paso about Sept. 15. The Mexican carrier has been using Miami as a fuel stop for some time but only recently received Civil Aeronautics Board permission to handle traffic there.

► **Aerolineas**—Company's service to Alamosa and Big Spring, Tex., has been suspended by the Civil Aeronautics Board for five years to strengthen traffic provided at these points by Pan American Lines, whose Sunday schedule was recently extended to 1954. Continental Air Lines' service to Big Spring was also suspended for five years.

► **Civil Aeronautics Board**—Has decided that proposals by Braniff Airways, Continental Air Lines and Western Air Lines to permit carriage of excess baggage aggregating more than 25 lb. at one-half the passenger rate should be canceled as being unconscionably low.

► **Eastern**—Has signed a contract with the International Association of Air Mechanics providing 70 cents-an-hour wage increase for 2,000 ground employees. Half of the rate is retroactive.



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in Jan. 1, 1918, and the other bill to Sept. 1, 1950. IAA took a strike vote at Eastern before agreement was reached on the new pact.

►Inter American Airways—This had its letter of authorization to a large irregular carrier evoked for operating some flights then prohibited by the usual scheduled exemption. The Miami Springs, Fla., carrier, which has been active on the New York-Miami-Puerto Rico run, was ordered to come and check from further violations of the Civil Aeronautics Act.

►ICAO—The International Civil Aviation Organization, at a special meeting in Paris, is attempting to write new aviation check performance reports for aircraft engaged in public carriage of passengers or international cargo. Object is to take into account the varying operating conditions existing at airports throughout the world.

►Lima Aero Lines—The Italian carrier has taken delivery on the first of three new DC-6s to be used in front Atlantic service.

►Mid-Continent—Plans to inaugurate service over its new routes between Chicago and Sioux City, Ia., and between Rockford, Ill., and Milwaukee on Sept. 25 between stops on the Sioux City-Chicago link will be at Waterloo and Des Moines, Ia., and Rockford, Ill. CAB awarded the route to Mid-Continent on Aug. 1 after Delta Air Lines, which originally held the certificate for them, failed to inaugurate service.

►Quick Air Lines—Expected to inaugurate service shortly on its new feeder routes serving 42 cities in Missouri, Kansas, Oklahoma, Arizona, Tennessee, Kentucky, Indiana, Illinois and Iowa. The short-haul routes consist of links originally granted to Delta Air Lines and awarded to Quick last month. Quick's base of operations will be St. Louis, according to President Leslie Hamilton.

►TWA American—This received Civil Aeronautics Board permission to suspend service to Prague, Czechoslovakia, until July, 1953. TWA has been serving Prague since 1945, but traffic has decreased sharply in recent months.

►Post Office Dept.—This ordered air parcel post rates increased effective Oct. 1.

►Passenger—Reports August traffic was the best in its history. The carrier carried 12,215 passengers during the month.



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What's Ahead in Congress

► **100 Group USAF?** The authorized ending on Air Force strength of "not to exceed 70 groups" will be lifted, probably not long after the new Congress convenes in January. That new is of a USAF approximating 100 groups, possibly upwards of that. It would be implemented by the 100 to 115-billion appropriated now in the bill at the Pentagon. The "not to exceed" wording was inserted upon by the Budget Bureau, as men of the White House.

► **Sunday for Air Thomas** Fulleter again reports the Truman Johnson responding of \$715 million for aircraft procurement and contracts from a 50 to a 40-group program in 1950 fiscal year. Reorganizing Defense Services Johnson still doesn't see as set. Although the expanded program would have had little effect as the Kansas was, Fulleter points out, there would have been a buildup toward the lead of base which it is to be necessary for the situation the U. S. flies.

► **European Aircraft.** The U. S. is going all-out to open cooperation and contribution of plans to various European plane output. Funds in the \$2.2-billion Mutual Defense Assistance Program for that you can't be spent for new factories abroad. But the Department of Defense will spend \$475 million on production equipment to increase capacity. Aircraft capacity a No. 1 on the list. The department estimates it will be able to increase European plane output by \$607 million by furnishing factory equipment. It could also increase European Electronics output by \$234 million. Labor supply, cheaper prices, and the substantial increase that would be concentrated in shipping equipment to Europe in a war were factors in the U. S.'s decision to push European military plant expansion.

► **Electronic Equipment.** USAF will purchase 920 million for shipment to European countries. The odds are for the \$100 million which Navy and Air Force will spend for electronic equipment for their own forces.

► **Chairman.** George Bradley of the Joint Chiefs of Staff will be given his fifth year unanimously by Congress. The Joint Chiefs will be able to make the decision. The Senate voted him the fifth year last week. Similar action by the House is expected. Only one USAF general, the late Maj. Gen. Arnold, has made it, and only one naval man, Adm. Chester Nimitz. The Pentagon might in its popular Bradley as a wedge for more for the next. It added for legislation giving every Chairman of the Joint Chiefs of Staff five years, but won't get it.

► **Butterflies Again?** Rep. James Van Zandt, a member of the House Armed Services Committee and a Naval Reserve captain, reports that "very definitely" the Navy is contemplating building butterflies, equipped to launch guided missiles.

► **Plant Reconstruction.** Senate Armed Services "Watch dog" subcommittee, headed by Sen. Lyndon Johnson, is pushing the Department of Defense to move ahead with plans to renovate aircraft and other defense plants now in standby status. The document reports reconstruction will cost approximately 20 percent of the plant's original cost. The subcommittee has urged preparation of detailed estimates.

► **Surplus Engine Sales.** Air Force took a verbal whipping in the Johnson subcommittee's first report for continuing sales of surplus engines, radio equipment, and compasses, and plane motor parts as surplus "junk and

rag" for weeks after the Korean outbreak. The Johnson report also complained it didn't like the "bread-butter" it got from USAF when it was investigating the sales at Robert AFB in Georgia.

► **Donald Cook.** Secretary and Executive Commissioner on leave to serve as counsel of the Johnson subcommittee, was a staff director of the House Naval Affairs Committee, whose profits investigations during the last war led to enactment of the scrapboat law.

► **Prototype Testing.** CAA on—although it has no plans for the new—was under the \$11.5-million prototype testing program to pay for testing of foreign aircraft to capacity. Authorization for the program, already approved by the Senate and the House (Senate and House Commerce Committee), will probably be sent to the White House shortly. Funds will still have to be obtained, though, before the program can move ahead.

► **Airline Wump.** Airlines may have a heavy burden of transporting immigrants back home, without charge should in times. The security bill now pending in Congress requires that if, within a period of five years, the U. S. decides it wants to deport an immigrant, the airline or shipping company that brought him here must transport him back. The airlines and steamships are fighting the provision. Under present law, airlines only have to transport back immigrants not accepted on this side in their arrival. They have grumbled against this, claiming that if a U. S. consul abroad issues a visa, they should not have to assume a financial responsibility because the visa isn't honored on this side.

► **Separation Study.** Senate Interstate and Foreign Commerce Committee's chairman, Sen. Edward Johnson, last Sept. 23 at the deadline date for bids on a contract to make studies and draw up a plan for separation of aircraft pay and subsidies. It will have to follow the three-way breakdown recommended by Johnson committee payments to aircraft, subsidies to various airlines to lower the cost of operation. Feb. 18 is the deadline for completion of the plan. Johnson has \$370,000 for the project.

► **United Air Lines.** contributed \$300 to the \$128,660 Litter transportation Association of America collected during the last half of the year to put across a program for a second transportation system in a relief against government ownership, according to TAA's latest registration report. UAL was the only aviation contributor. Railroads raised over more than \$60,000, including \$5000 by Association of American Railroads. Other contributors were the big industrial and banks.

People

► **Rep. Mike Monroney.** the Oklahoma Democrat who defeated Sen. Elmer Thomas in the primary, has been a staunch supporter of the 70-group USAF. As chairman of the Senate Appropriations Subcommittee on the Armed Services, Thomas engaged Senate opposition.

► **Rep. Carl Hays.** the California Republican who served as vice chairman of the 1945 Congressional Aviation Policy Board and has specialized on promoting aviation on Capitol Hill, is in for another term. He was both party vice-president in the California primary.

► **Ed Davis.** long-time staff member of Senate Commerce Committee's Aviation Subcommittee, has been detailed to the Midwest Marine Subcommittee.

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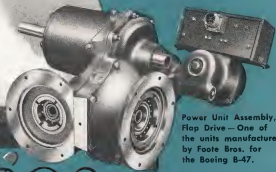
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